

Remarks

This paper is the submission accompanying a Request for Continued Examination. The applicant respectfully submits that claims 1-11, 13, and 16-22 as currently presented are patentable for the reasons provided below.

35 U.S.C. § 103 (Non-obviousness)

The applicant has been asked to show that claims 1-11, 13, and 16-22 in this case are non-obvious in view of the Sanchez-Lazer et al. and Hunt et al. references, further combined with Cho et al. in the case of claims 3, 4, 17, and 21. Since the Cho et al. reference is not cited in reference to any element of any of the independent claims as distinguished above, it is not necessary to respond to it to overcome the rejections in the Office action, although the applicant continues to rely on the arguments made in the previous responses distinguishing Cho et al.

The applicant respectfully submits that claims 1-11, 13, and 16-22 are non-obvious in view of the cited prior art, for the reasons provided below.

A showing of anticipation or obviousness cannot be made without showing that every element of the claimed invention is in the prior art, or is obvious in view of the prior art. In the present application, neither of Sanchez-Lazer et al. and Hunt et al. show all the elements of any of the pending claims, nor do they show that the missing elements are obvious.

Moreover, obviousness requires more than merely finding all the individual elements of the invention in a combination of two or more prior art references.

A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art.

KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S.S.Ct. 2007). § 2143 of the MPEP states,

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit.

Claim 1 and its dependent claims 2-8 each recite several elements that neither of the Sanchez-Lazer et al. and Hunt et al. prior art show or make obvious. Claims 1-8 are therefore non-obvious in view of Sanchez-Lazer et al. and Hunt et al. for each of the several reasons provided below.

Claims 1-8: Manufacturing at Differing Locations

Claim 1 and its dependent claims 2-8 each recite: "where at least some of the components are manufactured by several companies at differing locations." Sanchez-Lazer et al. and Hunt et al. do not disclose this limitation.

The Office action, at page 3, relies on the following language found at col. 1, lines 13-19 and col. 12, lines 36-40 of the Sanchez-Lazar et al. reference.

For instance, academic skills test, e.g., SATs, LSATs, GMATs, etc., are typically administered to a large number of students. Results of these tests are used by colleges, universities and other educational institutions as a factor in determining whether an examinee should be admitted to study at that particular institution.

* * *

Information on a test such as population characteristics, estimated number of examinees, sampling constraints, item analysis dates, administration dates, item and score equating and scale information, type of scoring, and test/section purpose are included in the planning documents so it does not have to be repeated on a report on each assembly.

The Office action, at page 3, states, in relation to this claim language,

Sanchez-Lazer et al. does not specifically disclose the following, but does make an analogy for tests in education in col. 1, lines 13-19, and discloses that tests are used by more than one institution for determining whether or not admission should be granted, which suggests that test results are sent to several institutions for determining if applicants meet certain qualifications, and also discloses an estimated number of examinees for tests are included in the planning documents in Col. 12, lines 36-40.

This language of Sanchez-Lazer et al. quoted above does not show the recited element of claim 1 and its dependent claims 2-8: "components ... manufactured by several companies at differing locations." The references as applied in the Office action do not disclose anything that is manufactured by several companies at differing locations. The several students who will take the examination are not manufacturing anything by taking the examination. The several schools that will receive and consider the test results are not manufacturing anything by receiving the results of the examination. The reference indicates that the test preparation company manufactured the test, but does not disclose having components of the test manufactured by several companies in differing locations. The Sanchez-Lazar prior art as applied thus does not even approximate a disclosure of the claim language attributed to it.

This element also is not shown to be found in the Hunt et al. applied reference. The Office action, at page 4, relies on the following language found at col. 1, lines 17-21 of the Hunt et al. reference.

Electronic component testing devices are well known in the prior art. Many different manufacturers produce various meters and/or testing devices which may be utilized to accurately and easily determine whether or not a particular electronic component is within design specifications.

This language of Hunt et al. does not show the recited element of claim 1 and its dependent claims 2-8: "where at least some of the components are manufactured by several companies at differing locations."

First, the "different manufacturers" referred to in the portion of Hunt et al. quoted above are the manufacturers of "various meters and/or testing devices," not the manufacturer of the "particular electronic component" Hunt et al. intends to be tested. Hunt et al. does not disclose that the "particular electronic component" is manufactured by several companies at differing locations.

Second, contrary to the assertion in the Office action, Hunt et al. is not "in an analogous art," as it does not disclose serial manufacture of a product by several companies at different locations. It only suggests what a single manufacturer may want to do on its own premises.

Therefore, the present claim recites an element not shown by the Office action to be present in the applied prior art.

Claims 1-8: Forwarding the Specification to a Specific Company

Claim 1 and its dependent claims 2-8 each recite: "forwarding the electronic specification to a specific company that is one of the several companies."

Addressing this claim element, the Office action, at page 3, relies on the following language found at col. 19, lines 9-10 of the Sanchez-Lazar et al. reference.

This step (1) involves the test creation team preparing specific information on the desired test and logging the information into a test planning system of the TCS. The TCS also generates test from records at this point.

This language does not show the recited forwarding element of claim 1 and its dependent claims 2-8. In Sanchez-Lazar et al., a test creation team is preparing and logging information in a test creation system. They aren't described as forwarding anything to anyone. As far as can be told, they are just acting within their own

organization. The Sanchez-Lazar prior art as applied thus does not even approximate a disclosure of the claim language attributed to it.

This element ("forwarding the electronic specification to a specific company that is one of the several companies") also is not shown in the Hunt et al. applied reference. The Office action, at page 4, relies on the following language found at col. 1, lines 17-21 of the Hunt et al. reference.

Electronic component testing devices are well known in the prior art. Many different manufacturers produce various meters and/or testing devices which may be utilized to accurately and easily determine whether or not a particular electronic component is within design specifications.

The Office action, at page 4, states, in relation to this language,

Hunt et al. discloses this limitation in an analogous art for the purpose of determining [by several manufacturers], whether or not a component is within design specifications so the components can ultimately be used for assembly. In this case, testing data must be forwarded to the manufacturers in order for them to test on their testing devices.

This language of Hunt et al. does not show the recited element of claim 1 and its dependent claims 2-8: "forwarding the electronic specification to a specific company that is one of the several companies."

First, as explained above, the "manufacturers" referred to in the portion of Hunt et al. quoted above are the manufacturers of "various meters and/or testing devices," not the manufacturer of the "particular electronic component" to be tested.

Second, the quoted language of Hunt et al. is not disclosing that "testing data must be forwarded to the manufacturers in order for them to test on their testing devices," as the Office action states. To the contrary, it just says that "different manufacturers produce various meters and testing devices." The various meters and testing devices can be

possessed and used by the individual or single company possessing the electrical component, to test the electrical component. The instruments can all be used in the tester's place of business to do this. The possessor of the electrical component is not disclosed by this prior art language to forward the obtained test results to the manufacturer of the testing device or to anyone else.

For a simple example, separate companies might make a capacitance testing device (Company A), a resistance meter (Company B), and a voltmeter (Company C). Company D that has an electrical component may need to find out its capacitance, resistance and voltage drop. Company D can do this, as Hunt et al. discloses, by buying a capacitance testing device from Company A, an ohmmeter from Company B, and a voltmeter from Company C. Company D can use these three testing devices on Company D's premises and evaluate whether the electrical component has the proper capacitance, resistance, and voltage drop. Company D can do this without forwarding any type of specification to A, B, C, or anyone else.

Second, contrary to the assertion, Hunt et al. is not "in an analogous art," as it does not disclose serial manufacture of a product by several companies at different locations. It only suggests what a single manufacturer may want to do on its own premises.

Therefore, the present claim recites an element not shown by the Office action to be present in the applied prior art.

Claims 1-8: Specific Company Appending Test Results

Claim 1 and its dependent claims 2-8 each recite: "inducing the specific company to append the test results to the electronic specification."

The Office action, at page 3, relies on the following language found at col. 19, lines 45-52 of the Sanchez-Lazar et al. reference.

It is determined at step (5a) that the test specifications have not been met, the deviations are resolved by returning to step (4) or step (4*). The assembler, however, may confer with knowledgeable parties to determine if

some deviations are acceptable. If they are acceptable, these determinations are documented in the assembly records archive, described below with reference to step (13).

The Office action, at page 3, states that this language of Hunt et al. "shows that determinations from testing the assembly are documented in the assembly records archive."

This language does not show the recited element of claim 1 and its dependent claims 2-8 because the claim language requires the actor (the company originating the electronic specification) to induce "the specific company," which is another company, to append the test results to the electronic specification. In the quoted language of Sanchez-Lazar, the actor originating the assembly records archive is receiving information back from the "knowledgeable [third] parties" and appending it to the specification. The knowledgeable parties are not appending anything to the test producing company's electronic specification.

This element of : "inducing the specific company to append the test results to the electronic specification" also is not shown in the Hunt et al. applied reference. Therefore, the present claim recites an element not shown by the Office action to be present in the applied prior art.

Claims 1-8: Inducing One Company To Forward Appended Test Results To Another Company

Claim 1 and its dependent claims 2-8 each recite: "inducing the specific company to forward the electronic specification with appended test results to another one of the several companies."

The Office action, at page 3, relies on the following language found at col. 20, lines 25-37 of the Sanchez-Lazar et al. reference.

The final step (12) in the TAS process is assembly documentation, wherein the TAS creates documentation of the completed assembly. The documentation includes copies of the formulated test document, SKM key files, data from the worksheet summary, reports of any changes made to the test items, special comments regarding the assembly entered by the staff during the assembly process, and reports for the psychometric staff. This is all performed using a documentation component of the TAS. As part of this step (12), the TAS passes information on the assembled test, such as placeholder history and statistical records for the assembled test, to the TCS (step (12a)) and to the appropriate TAS databases (step (12b)), updating their records.

The Office action, at page 3, states that this language discloses,

"either shipping the completed product to the customer or forwarding the electronic specification, (Col. 20, lines 25-37, documentation related to the assembly is sent to appropriate TAS [test assembly system] databases, updating their records).

This language of the Sanchez-Lazar et al. reference does not show the recited element of claim 1 and its dependent claims 2-8 for several reasons.

First, the quoted passage of Sanchez-Lazar et al. has nothing to do with shipping a product to a customer. It deals with putting information about a product in computer databases, not disclosed to be associated with any customer.

Second, the cited portion of Sanchez-Lazar et al. has nothing to do with inducing one outside manufacturer to forward anything to another outside manufacturer. The TCS and TAS of the reference appear to be computer applications, not other companies. Again, the reference does not disclose that this is anything more than one company storing information about its product on its own premises, without forwarding anything to any other company.

This element of "inducing the specific company to forward the electronic specification with appended test results to another one of the several companies" also is

not shown in the Hunt et al. applied reference. Therefore, the present claim recites an element not shown by the Office action to be present in the applied prior art.

Claim 9: Introduction

Claim 9 recites several elements that neither of Sanchez-Lazer et al. and Hunt et al. show. Claim 9 is therefore novel and non-obvious in view of Sanchez-Lazer et al. and Hunt et al.

Claim 9: Transferring Build Document To A Second Company To Build First Subassembly

Claim 9 recites: "the first company transferring the electronic build document to a second company for the construction of a first subassembly for the product."

The Office action, at page 6, again relies on the following language found at col. 19, lines 9-10 of the Sanchez-Lazar et al. reference.

This step (1) involves the test creation team preparing specific information on the desired test and logging in the information into a test planning system of the TCS. The TCS also generates test from records at this point.

This language of the Sanchez-Lazar et al. reference does not show the recited element of claim 9 because the referenced text does not refer to a first company transferring anything to a second company. This language of the Sanchez-Lazar et al. reference apparently refers to activity going on within a single company – logging information about a test into a computer.

This element of "the first company transferring the electronic build document to a second company for the construction of a first subassembly for the product" also is not shown in the Hunt et al. applied reference.

Therefore, the present claim recites an element not shown by the Office action to be present in the applied prior art.

Claim 9: Second Company Attaching Test Results to Electronic Build Document

Claim 9 recites: "inducing the second company to attach the test results to the electronic build document."

The Office action, at page 6, again relies on the following language found at Col. 19, lines 45-52 of the Sanchez-Lazar et al. reference to show this claim limitation.

It is determined at step (5a) that the test specifications have not been met, the deviations are resolved by returning to step (4) or step (4*). The assembler, however, may confer with knowledgeable parties to determine if some deviations are acceptable. If they are acceptable, these determinations are documented in the assembly records archive, described below with reference to step (13).

The Office action, at page 6, states that this language discloses the above-quoted claim language. This language does not show the recited element of claim 9 because, as explained above, this language does not disclose inducing a second company to do anything. An "assembler," not disclosed to be from another company, is conferring with knowledgeable parties, again not disclosed to be from another company, then entering information in a computer archive.

This claim element ("inducing the second company to attach the test results to the electronic build document") also is not shown in the Hunt et al. applied reference. Therefore, the present claim recites an element not shown by the Office action to be present in the applied prior art.

Claim 9: Communications Bus Limitations

Claim 9 recites: "the first company attaching a communications bus to the product." and several other limitations involving the bus.

The Office action, at page 6, relies on the following language found at claim 9, col. 23, lines 25-26 of the Sanchez-Lazar et al. reference.

9. A computer based test assembly system for assembling a test on-line in electronic form, comprising:

The Office action, at page 6, states, "attaching a communications bus to the product [is] inherent with computer-based system in [Sanchez-Lazar et al.] Col. 23, lines 25-26 since communication buses are used in computer-based systems for communication and in order to perform a test, the product or component must be communicated with." This prior art language does not show the recited element of claim 9 because the language of Sanchez-Lazar et al. relied on in the Office action says nothing about who attached the communications bus to the computer inferred in Sanchez-Lazar et al.

This element of "the first company attaching a communications bus to the product," and several other limitations involving the bus also is not shown in the Hunt et al. applied reference. Therefore, the present claim recites an element not shown by the Office action to be present in the applied prior art.

Claim 9: Testing Bus Operability, Adding Test Results To Build Document, Etc.

Claim 9 recites: "the first company testing the operability of the bus; the first company adding the bus operability test results to the electronic build document; attaching the first subassembly to the bus; testing the operability of the first subassembly and the bus; attaching the subassembly and bus operability test results to the electronic build document."

The Office action, at pages 6-7, states:

Sanchez-Lazar et al. does not specifically disclose the following, but does disclose testing and adding operability test results to the electronic build document for each component as discussed above, therefore making the following limitation is obvious with Sanchez-Lazar et al: testing the operability of the bus/adding the bus operability test results to the electronic

build document/attaching the first subassembly to the bus, testing the operability of the first subassembly and the bus-attaching the subassembly and bus operability test results to the electronic build document, (this limitation is obvious since the communications medium is associated with the tested component, and it would therefore be obvious to also test the medium, and also add the operability test results of the communications medium to the electronic build document since the component's operability relies on the operability of the communications medium).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to test the operability of the bus, and add the bus operability test results to the electronic build document with the motivation of also testing and adding information about items associated with the actual component.

This language does not show the recited element of claim 9 because "testing and adding operability test results to the electronic build document for each component," which the Office action attributes to Sanchez-Lazer et al., is not a disclosure of the further claimed steps of "attaching the first subassembly to the bus" and "testing the operability of the first subassembly and the bus." the language of Sanchez-Lazer et al. relied on in the Office action says nothing about attaching a first subassembly to the bus, or about testing the operability of the first subassembly or the bus.

This element also is not shown in the Hunt et al. applied reference. Therefore, the present claim recites an element not shown by the Office action to be present in the applied prior art.

Claims 10, 11, 13, and 16-22: Introduction

Claim 10 and its dependent claims 11, 13, and 16-22 each recite several elements that neither Sanchez-Lazer et al. nor Hunt et al. show. (Claims 12, 14, and 15 are canceled.) Claim 10 and its dependent claims 11, 13, and 16-22 are therefore non-obvious in view of Sanchez-Lazer et al. and Hunt et al.

Claim 10: Testing And Identifying A Component On Bus

Claim 10 and its dependent claims 11, 13, and 16-22 each recite: "receiving a first signal from the component by means of the bus; determining a unique identity for the signaling component; and responding, by means of the bus, with a second signal to the component providing the component with an identity." This language was incorporated from claim 15 into claim 10.

The Office action, at page 10, does not point to any disclosure in the Sanchez-Lazar et al. reference describing these features, although the Office action asserts that these features are shown by Sanchez-Lazar et al. The recited claim language relates to testing and associating an identity with a component attached to a bus. Sanchez-Lazar et al. relates to "assembly" of a test, not of a physical component attached to a bus, and does not disclose the latter.

These elements also are not shown in the Hunt et al. applied reference. The Office action, at page 10, relies on the following language found at col. 6, lines 5-14 of the Hunt et al. reference.

After a sufficient number of chips 20 have been positioned within test block track 92, one chip 20 will overlie sensor aperture 94. At this point, a reflective sensor 96 may be utilized to generate a signal indicating the presence of a chip 20 at the predetermined testing position. The output of reflective sensor 96 is then coupled, via sensor output 84, to appropriate circuitry which is utilized to remove the air pressure coupled to pneumatic cylinder 60 (see FIGS. 4 and 5) such that cylinder rod 62 will retract.

The Office action, at page 10, relies on this language of Hunt et al. as disclosing the above-stated claim language, "receiving a first signal from the component by means of the bus; determining a unique identity for the signaling component; and responding, by means of the bus, with a second signal to the component providing the component with

an identity." The Office action interprets this language of Hunt et al. as showing a signal, apparently the recited second signal. The Office action further states,

Hunt et al. discloses this limitation in an analogous art for the purpose of showing that signals are used to indicate the presence of a component.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to receive a first signal from the component by means of bus; determine a unique identity for the signaling component; respond by means of bus with a second signal to the component providing the component with an identity with the motivation of using bus signals to control the operation of building components.

This language at col. 6, lines 5-14 of the Hunt et al. reference does not show the recited elements of claim 10 and its dependent claims 11, 13, and 16-22. Hunt et al. as cited does not disclose "determining a unique identity for the signaling component." It just discloses detecting that an anonymous component 20 is present in a certain location. The component present also is not a "signaling component," as there is no indication in Hunt that it is sending a signal. Hunt et al. as cited does not disclose "responding by means of the bus with a second signal to the component providing the component with an identity." Rather, the cited passage of Hunt just indicates a mechanical response ("cylinder rod 62 will retract") to the presence of a "chip 20 ... overl[y]ing sensor aperture 94."

Therefore, claim 10 and its dependent claims 11, 13, and 16-22 each recite or require several elements not shown by the Office action to be present in the applied prior art.

35 U.S.C. § 132 (Amendments Supported)

The amendments to claim 1, 9 are clarifying amendments that have an antecedent basis in the claims as originally submitted.

The amendment to claim 10 reciting "wherein the product includes a communications bus, and input and output components to be operably linked to the bus" is supported by now-canceled claim 12 as previously submitted.

The amendment to claim 10 reciting "wherein the building step includes the further steps of: calling for an input or output component to be operably connected to the communication bus as identified by the installation sequence; verifying the operability of the component and the bus; receiving a first signal from the component by means of the bus; determining a unique identity for the signaling component; and responding, by means of the bus, with a second signal to the component providing the component with an identity," is supported by now-canceled claims 14-15 as previously submitted.

The amendments in this paper are therefore free of new matter.

Conclusion

The applicant has shown that this application satisfies all the legal requirements pointed out by the Examiner. Therefore, the Examiner is respectfully requested to prepare a Notice of Allowability allowing all the pending claims (1-11, 13, and 16-22).

Respectfully submitted,

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